WHAT IS CLAIMED IS:

1. A lithographic printing plate precursor comprising a metal support having formed thereon an anodic oxide film, and an image-forming layer containing a light-to-heat converting agent or a light-sensitive layer capable of image-forming with infrared laser exposure provided on the anodic oxide film.

2. The lithographic printing plate precursor as claimed in claim 1, which comprises the metal support having formed thereon an anodic oxide film having pores having a mouth diameter of the surface of from 0 to 30 nm and a maximum inside diameter of from 20 to 300 nm, and an image-forming layer containing a light-to-heat converting agent provided on the anodic oxide film.

3. The lithographic printing plate precursor as claimed in claim 2, wherein sealing treatment is performed on the surface mouth areas of the pores of the anodic oxide film and the pore diameters of the surface mouth areas are lessened.

4. The lithographic printing plate precursor as claimed in claim 2, wherein the thickness of the surface mouth area of the pore diameter of from 0 to 30 nm of the anodic oxide film is from 10 to 500 nm and the thickness of the area having the maximum inside diameter of from 20 to 300 nm is from 100 to 2,000 nm.

5. The lithographic printing plate precursor as claimed in claim 2, wherein the pore density of the surface area of the anodic oxide film is 2,500/μm^2 or less.

6. The lithographic printing plate precursor as claimed in claim 2, wherein the void ratio of the anodic oxide film is from 20 to 70%.

7. The lithographic printing plate precursor as claimed in claim 2, wherein the anodic oxide film is formed by anodic oxidation treatment with an electrolyte containing a sulfuric acid and then by anodic oxidation treatment with an electrolyte containing a phosphoric acid.

8. The lithographic printing plate precursor as claimed in claim 1, which comprises an aluminum support comprising an aluminum sheet for use as the metal sheet of the metal support having formed thereon an anodic oxide film, a particle layer comprising particles having an average particle diameter of from 8 to 800 nm, and a heat-sensitive layer capable of image-forming with infrared laser exposure provided in this order.

9. The lithographic printing plate precursor as claimed in claim 8, wherein the void ratio of the anodic oxide film is from 20 to 70%.

10. The lithographic printing plate precursor as claimed in claim 8, wherein the heat conductivity of the particles is 60 W/(m°K) or less.

11. The lithographic printing plate precursor as claimed in claim 8, wherein the particle layer is formed by electrolytic treatment of the aluminum support with an electrolyte containing hydrophilic particles having an average particle diameter of from 8 to 800 nm.